

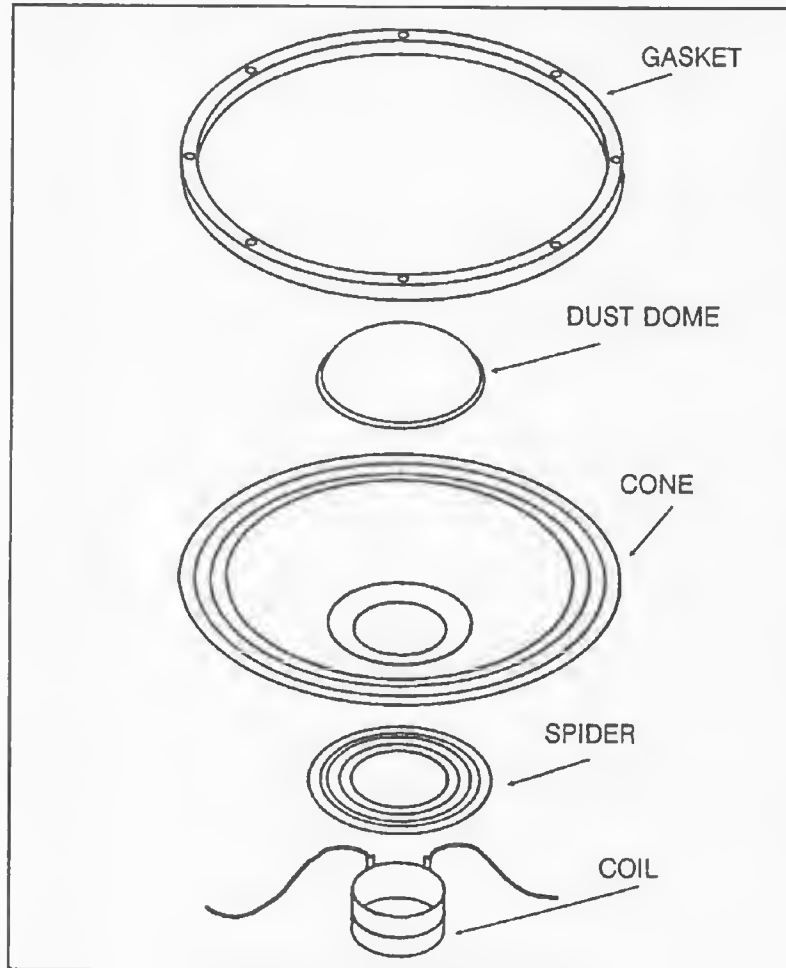


Electro-Voice®

600 Cecil Street
Buchanan, Michigan 49107
Phone: 616-695-6831
TWX: 810-270-3135

SERVICE DATA

EVX-156 WOOFERS



Pictorial 1. EVX-150 Parts

MATERIALS REQUIRED

QTY	DESCRIPTION	PART#
1	CONE	A72359
1	COIL	81556
1	SPIDER	72534
1	DUST DOME	72362
1	FUSE	A4100
1	TUBING	A66093

ADHESIVES REQUIRED

DESCRIPTION	PART #
A - EPOXY HARDENER	97012
B - EPOXY RESIN	97008
C - RTV SILICONE	97258
D - RUBBER CEMENT	97019
E - SPIDER CEMENT (CLEAR)	97323
F - DAMPING COMPOUND	97346

TOOLS REQUIRED

CENTERING FIXTURE #10890-FA
SOLDERING IRON
SHARP KNIFE
PHILLIPS SCREWDRIVER
CHISEL
1/2-INCH PAINTBRUSH
HEAT GUN (OPTIONAL)
HEAT LAMP (OPTIONAL)

TEST EQUIPMENT REQUIRED

VOLTAGE BREAKDOWN TESTER
SINE WAVE GENERATOR
200-WATT (OR GREATER) POWER AMPLIFIER
AC VOLTMETER
OHMMETER

RECONE INSTRUCTIONS

(Refer to Pictorial 1)

1. Remove the outer rubber gasket and set aside; this part will be reused later.
2. Remove the old cone, spider, and voice coil by cutting along the outer perimeter of the cone and spider. Cut both lead wires and remove the cone and discard.

3. Using a chisel, remove any excess adhesives where the cone and spider were attached. Heating these areas with a heat gun will simplify this operation. Be careful not to get any debris in the magnetic gap. Vacuum the speaker to remove all the debris. Remove any particles from the magnetic gap using a piece of folded masking tape.

4. Remove the white heat shrink tubing from the fuse that is attached to the positive input terminal (see Figure 1). Check the continuity of the fuse using an ohmmeter. Replace the fuse with a BUSS GFA-10 (10 A, FAST BLOW) fuse if necessary. **CAUTION: REPLACE THIS FUSE ONLY WITH ONE THAT IS OF THE SAME TYPE AND RATING.**

5. Slide the voice coil onto the centering fixture until the top of the voice coil touches the tape at the top of the fixture. Place the fixture in the magnetic gap. The fixture should rest on the top of the pole piece.

6. Apply a bead of EV #97323 adhesive to the spider seating area on the frame. DO NOT SUBSTITUTE THIS ADHESIVE.

7. Slide the spider over the voice coil. Press the outer perimeter of the spider into the adhesive.

8. There are three counterbores in the frame where the spider is attached. Apply a bead of EV #97323 adhesive to the top of the spider between the spider and the frame in these three areas.

9. Mix one part of EV# 97012 epoxy hardner to two parts of EV# 97008 epoxy resin. Stir for at least one minute.

10. Apply a very small bead of the epoxy mixed in step nine to the inside diameter of the spider, between the spider and voice coil. Rotate the voice coil and centering fixture to allow the spider to position itself on the voice coil.

11. Apply a bead of EV #97019 rubber adhesive to the surround seating area on the frame. Slide the cone over the voice coil. Position the cone such that the two holes in the neck of the cone are aligned with the input terminals. Press the surround into the adhesive, being careful not to stretch the surround.

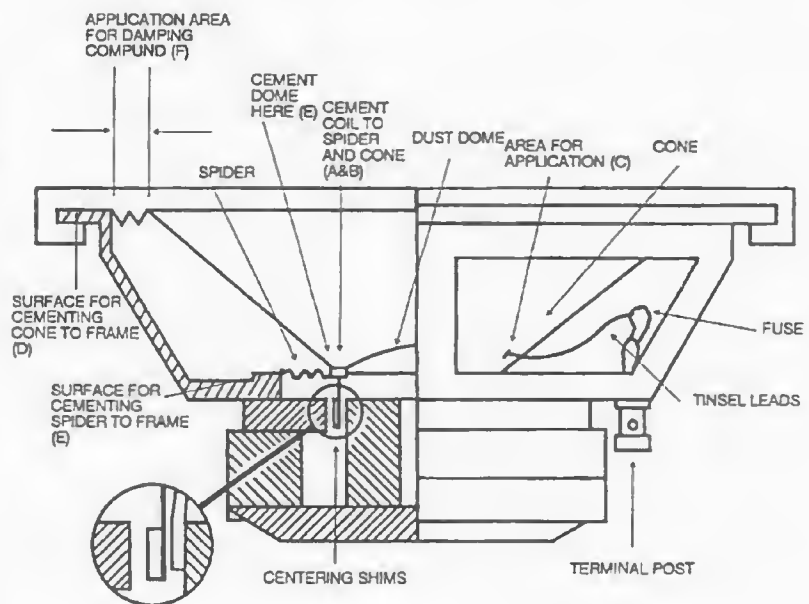


Figure 1 - EVX Gluing Instructions

12. Route the two lead wires through the holes in the cone. Pull the lead wires tight, past the solder lugs. The silicone insulation should extend 0.5 to 0.6 inches past the lug. This assures that an adequate loop is put in the lead wires.

13. Slide the piece of heat shrink tubing (EV #A66093) over the tinsel lead that attaches to the fuse which is connected to the positive input terminal (see Figure 1). Solder the tinsel lead to the fuse using a 10 W, 500°F soldering iron. Using an iron of higher temperature may damage the fuse. Slide the tubing over the fuse and shrink using a heat gun.

14. Apply a bead of epoxy to the voice coil and cone joint. Cover the lead wires with epoxy on the inside of the cone. Be careful not to get any epoxy on the centering fixture.

15. Allow the epoxy to cure overnight. A heat lamp may be used to accelerate the epoxy cure. Position the heat lamp a minimum of 18 inches above the epoxy joint.

16. After the epoxy has hardened, remove the centering fixture.

17. To attach the dust dome, use EV #97323 clear adhesive. Do not use any other adhesive to attach the dust dome.

18. Apply a bead of adhesive to the lip on the outer perimeter of the dust dome and attach the dust dome to the cone. Apply a 1/4-inch bead of adhesive around the outer perimeter of the dust dome, between the dust dome and the cone. This step must be followed carefully to prevent the dust dome from coming loose.

19. Attach the rubber gasket that was removed in step one to the frame.

20. Using a 1/2-inch paintbrush, apply a coat of damping compound, EV #97346, to the surround area of the cone.

21. Apply a drop of #97258 RTV to each voice coil lead wire at the point where it exits the cone.

22. Allow the speaker to sit for at least two hours before proceeding with tests.

TEST INSTRUCTIONS

1. Insulation Breakdown Test (Hi-pot test): Apply 1000 volts (50 to 60 Hz ac) between the **NEGATIVE** input terminal and the cone. This should be applied to the cone at a point directly above the input terminals and midway between the dust dome and surround. There should be no insulation breakdown as indicated on the breakdown tester. This must be done because the cone contains carbon fiber, which is conductive.

2. Apply a 14-volt sine wave to the input terminals and sweep from 20 Hz to 2000 Hz. There should be no rums, buzzes, or spurious noises.

3. Apply a 35-volt, 20-Hz sine wave to the input terminals for one minute. The speaker should not bottom. This is indicated by a loud striking noise.